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MEETING NOTES

TO: Distribution

DATE: February 1, 1994

FROM: Philip Nixon

MEMO #: SP307:020394:01

PROJECT #: Solar Pond IM/IRA

ATTENDANCE:

Randy Ogg, EG&G
Harlen Ainscough, CDH
Phil Nixon, ES
Richard Henry, ES
Andy Ledford, EG&G
Dave Ericson, EG&G
Scott Surovchak, DOE
Peg Witherill, DOE
Ted Kearns, DOE/KMI
Steve Paris, EG&G
Lee Pivonka, G&M
Steve Cullen, G&M
Mark Austin, EG&G
Arturo Duran, EPA
Steve Howard, DOE SMS
Bob Siegrist, LATO
Frazer Lockhart, DOE
John Rampe, DOE
Kevin Loos, DOE
John Haasbeek, ERM
Shaleigh Whitsell, PRC

DISTRIBUTION:

Attendees
L. Benson, ES
A. Conklin, ES
P. Breen, ES
H. Heidkamp, ES
K. Cutter, ES
S. Stenseng, ES
A. Fricke, ES
T. Kuykendall, ES
T. Evans, ES
B. Cropper, ES
C. Montes, ES
R. McConn, ES
W. Edmonson, ES
B. Wallace EG&G (Admin.
Record) (2)
K. London, EG&G
Martin McBride, DOE
Helen Belencan, DOE
Steve Cooke, EG&G
Joe Schieffelin, CDH
Steve Keith, EG&G
Dave Myers, ES
R. Wilkinson, ES
S. Winston, ES
Kim Ruger, EG&G
Michelle McKee, EG&G
Marcia Dibiasi, IGO
Rich Stegen, ES
Cindy Gee, ES
Alan MacGregor, ERM



SUBJECT: Weekly Status Meeting

1) Meeting Minutes Review

Steve Paris indicated that wells were installed in the vicinity of the Solar Evaporation Ponds (SEPs) in the 1960's which may be able to be used to help define the historic high water table elevation. **Steve Paris will access the old data and provide it to ES. ES will investigate the validity and usefulness of the data.**

It was discussed that the Constituents of Concern (COCs) could be re-assessed with respect to the organic constituents that were included due to suspect historic detection. It was agreed that the team meeting participants would review the data in the RFI/RI portion of the IM/IRA decision document and ES would re-run the statistics on the validated database to determine if the list of COCs should change. The team will be in position to make an informed decision on this issue once these two activities are completed.

It was agreed that ES will not need to model all the vadose zone COCs through VLEACH because the subsurface drainage layer has been added as an engineering solution to keep the consolidated liners from coming into contact with groundwater. ES modeled the contaminants that had the highest toxicities or were readily mobile. The results of the VLEACH model under unsaturated conditions indicated that the leachate concentrations were less than the Groundwater Protection Standards or the Colorado Drinking Water Standards. Harlen Ainscough requested that a VLEACH analysis be performed to assess the leachate that would be expected under saturated conditions. **ES will perform an assessment of the Leachate that would be expected to result from saturated conditions and provide results at the next team meeting.**

Frazer Lockhart requested that a copy of the comment form for the OU4 IM/IRA decision document (roundtable review) be provided to the review team on diskette. It was agreed that a diskette will be provided with a copy of the form in both Apple and IBM format. ES will also consider adding a column specifying whether the comment is editorial or Technical in nature.

Arturo Duran indicated that the project strategy and subsequent design need to be flexible so that changes can be made as a result of new information that becomes available. Harlen Ainscough specified that as new relevant information becomes available an assessment of previous agreements will be made to determine potential impacts to those agreements.

2) Phase I RFI/RI Remaining Field Activities

Randy Ogg stated that EG&G would pursue a clean closure of the SEP 207-C. EG&G would excavate down to the level of the historical high water table elevation if necessary and would take samples as excavation was proceeding. In addition, conformational samples would be taken for the purpose of verifying that clean closure was achieved. Randy therefore specified that there was no need to continue with the SEP 207-B South, or SEP 207-C drilling program that was previously planned for early spring (1994). Harlen Ainscough indicated that DOE needed to provide characterization data to comply with RCRA requirements. The characterization could be deferred until the remedial

excavation, but the soils being excavated would have to be consolidated above the subsurface drainage system. DOE would meet the characterization requirements specified in the RFI/RI workplan by conducting analyses at 3 locations during remedial excavation. Samples would be taken at 0-2 feet for a full suite of analytes as specified in the workplan. Samples would be taken at 2-4 and 4-6 feet for analyzing constituents that were detected in the previous upper level samples. Mark Austin indicated that the design team was planning on using the previously anticipated SEP drilling results to determine the amount of material that would be excavated from the SEP 207-C. This information would be very helpful in preparing the footprint for the engineered cover system. It was agreed that sampling would not have to be done as currently planned as long as equivalent characterization data was provided during the closure/remediation. DOE may perform sampling and analysis as required to support the design effort.

It was agreed that DOE would prepare the conceptual design to clean close SEP 207-C. It would be assumed that the subsurface soils would need to be excavated down to the level of the historical high water table elevation (6-8 feet). ES will assume that excavation will be required to a depth of 7 feet. It was agreed that Part IV and Part V of the IM/IRA would be revised to incorporate the new design strategy. It was agreed by all parties that these Parts will be submitted for roundtable review on March 1, 1994 since the team will be reviewing other Parts until that time.

3) CAMU Requirements

Harlen Ainscough discussed the issues on this project with his colleagues at CDH with respect to the request for the establishment of a Corrective Action Management Unit (CAMU). Harlen specified that DOE would need to justify their request for a CAMU, and that the state had the authority to approve or disapprove of the request. The formal request for the CAMU could be within the IM/IRA decision document. Harlen specified that there were a few issues associated with the establishment of a CAMU that DOE needed to fully address:

- A) The establishment of a CAMU could require treatment of the contaminated media prior to it's consolidation beneath the engineered barrier. Frazer Lockhart indicated that the cover system is a form of treatment to provide a reduction in contaminant mobility.
- B) The placement of contaminated soil beneath the subsurface drainage layer will be contingent upon a demonstration that the closure is protective of human health and the environment. DOE will provide the results of the VLEACH modeling to satisfy this requirement.

In addition, DOE will have to provide technical justification for the use of the asphaltic concrete instead of natural clay materials. The IM/IRA should specify that this specialized asphaltic material is very different from normal asphalt pavement, and will meet or exceed the low permeability requirements in the Colorado Hazardous Waste Management Regulations. ES was tasked to perform an analysis of the CAMU requirements and provide an assessment as to whether they can be met. This should be discussed at the

next team meeting. Arturo Duran suggested that the IM/IRA include a brief discussion concerning the regulatory definition of the CAMU because many reviewers may not be knowledgeable with respect to this fairly new regulatory provision.

Phil Nixon specified that ES was considering establishing the boundaries of the CAMU as roughly the IHSS boundaries. Harlen specified that this was possible, but recommended that any required laydown areas be included. It was also suggested to consider if there was an advantage to locating the mobile lab within the CAMU.

4) Conceptual Design Status

Dave Ericson specified that the conceptual design delivered on March 1, 1994 will reflect the new strategy of clean closing C-Pond. Dave noted that OU4 would only remediate those OU9 Original Process Waste Lines (OPWLs) that are impacted by the OU4 closure/remediation activities. Other lines near contaminated areas may be considered for removal. OPWLs that are adjacent to OU4 may not be remediated because the break in the OU9 lines could result in problems for OU9 with respect to implementing their RFI/RI workplan and closure/remediation strategies.

It was agreed that the paved road through the buffer zone area will not require remediation via this project. Remediation of this road (if necessary) will occur when the overall site remediation/closure occurs.

5) Post-Closure Monitoring and Assessment

Steve Cullen presented a conceptual design for the post-closure monitoring and assessment program. The program consists of monitoring systems for the engineered cover, the vadose zone, and the groundwater. Steve proposed a data logging system within the engineered cover's upper soil layers to monitor the propagation of a wetting front and the freeze/thaw cycles. The vadose zone will be monitored by vertical access tubes drilled through the engineered cover, and horizontal neutron access probes beneath the subdrain. Ground water will be monitored by sampling the POC wells. Phil Nixon indicated that ES is concerned with penetrating the engineered cover with monitoring wells.

Arturo Duran stated that he agreed with monitoring the engineered cover but is not sure that monitoring the vadose zone is required. Arturo specified 4 reasons why the vadose zone monitoring system may not be required:

- 1) The concentrations of contaminants are not as high as previously anticipated.
- 2) The leaching modeling results indicate that the subsurface soils have a high ion exchange capacity and there is no expected adverse impact to groundwater from leachate.
- 3) The design has a subsurface drainage layer to prevent ground water from contacting the consolidated liners.

- 4) The DOE is not required to comply with regulations that have not been promulgated.

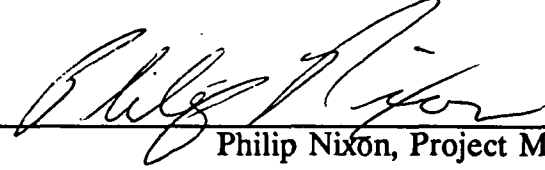
Frazer Lockhart stated that if the DOE felt comfortable that a retrofit of the engineered cover would not be required to comply with the anticipated regulations, then they might feel comfortable with downscaling the system. At this point in time, however, DOE was comfortable with reviewing a design for a monitoring system which complies with the anticipated regulations because it will be economical to install it when the cover is constructed. It was agreed that the vadose zone monitoring system would be included in the round table review draft so that the system could be evaluated. It was agreed that the design of the engineered cover will be robust. There will not be a design sacrifice with respect to the engineered cover due to the fact that there will be monitoring systems. Harlen Ainscough stated that since wastes are being left in place, the early warning monitoring systems may help the closure/remediation strategy gain acceptance.

Lee Pivonka presented groundwater flow paths and the proposed locations of Point of Compliance (POC) wells. Lee reported that the surface groundwater and bedrock groundwater flow paths differ slightly which means that the upgradient and downgradient POC wells differ slightly for the two groundwater systems. It was proposed that the POC change to the western side of SEP 207-A since the SEP 207-C will be clean closed. Therefore, the groundwater monitoring system will be able to detect a release from the consolidated materials beneath the engineered cover. Harlen Ainscough will review the regulations and/or the IAG to assess whether the POC can be moved to the western side of SEP 207-A. Subsequent to the meeting (February 2, 1994) Harlen Ainscough agreed that moving the POC to the west side of SEP 207-A was appropriate for the post-closure monitoring system.

It was discussed that the initial post-closure monitoring would be for all the analytes listed in the OU4 RFI/RI workplan. This list may also be analyzed once each year. Only constituents that have been detected in groundwater would need to be analyzed during the remaining quarterly sampling.

6) Open Issues

Scott Surovchak requested that the team members identify their issues and concerns so that they can be addressed in the IM/IRA document.


Philip Nixon, Project Manager